

RCS file: /s6/cvsroot/euterpe/BOM,v

Working file: BOM

head: 5.105

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 1940; selected revisions: 14

description:

top level BOM

revision 3.849

date: 1995/06/15 16:45:57; author: jeffm; state: Exp; lines: +2 -2

Release Target: euterpe/verify/nasty

Oops, prior release contained downlevel files.

revision 3.848

date: 1995/06/15 16:42:58; author: jeffm; state: Exp; lines: +2 -2

Release Target: euterpe/verify/nasty

Fixed hermnasty.

revision 3.847

date: 1995/06/15 00:12:04; author: bobm; state: Exp; lines: +2 -2

Release Target: euterpe/doc

front.mif

intro.mif

opcodes.mif

pipeline.mif

memory.mif

events.mif

reset.mif

clock.mif

cerberus.mif

endian.mif

newchanges.mif

only a few small changes

revision 3.846

date: 1995/06/14 22:36:03; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc

uu/uu_control.pim:

Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas.

Then uustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

revision 3.845

date: 1995/06/14 08:39:54; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).
Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 3.844

date: 1995/06/13 19:56:53; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
uunb_debug.srl

For debugging uu/nb handshake

revision 3.843

date: 1995/06/13 18:27:42; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

Fix more signal names

revision 3.842

date: 1995/06/13 18:24:45; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
ife_debug.srl

For hermetestCOMO

revision 3.841

date: 1995/06/13 18:07:52; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

Fix signal names

revision 3.840

date: 1995/06/13 17:49:48; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

New trace file for Zycad

revision 3.839

date: 1995/06/12 04:52:26; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc

uu/uu_control.pim for uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only)

revision 3.838
date: 1995/06/11 19:36:29; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V (do placement later):

Change in bsrc BOM 320.1 and bsrc/uu BOM 206.0 to "use the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over" was allowing a store&swap (synch op) in one cyl to suppress forward progress in up to 3 other cyls. The claim was that this would not matter architecturally, although it would perturb micro level behavior. Further reflection has deemed this too tricky, so add eta chopper so that only the cyl needing suppression gets it.

uu/sswap.tst uu/uuswap8.tst: Restore previous versions to match restore of 1st job in store&swap again enforcing eta3. Doing restore only to avoid confusion of the BOM including not-the-newest file from the repository.

revision 3.837
date: 1995/06/11 08:36:35; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only) (do placement later):

Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta for the remaining volatile synch op (store&swap) sequence at the end of the 2nd (was 1st) job" inadvertently allowed forward progress to be declared, releasing CC after an ICache miss before DCache miss was tested. This allowed another cyl to steal the ICache line, undoing the previous fill and causing a thrash hang. To avoid the expense of adding a forward progress pipe, we justify the use of the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over.

revision 3.836
date: 1995/06/10 09:08:24; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing vldSwpGoUW, causing probable excess repel toggels leaving preempts locked out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when storeswap repel begin delay was overloaded onto swpBsy.

uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until step=1 to align eta and begin repel.

=====
RCS file: /s6/cvsroot/euterpe/compass/layouts/lid_euterpe_1.ly,v
Working file: compass/layouts/lid_euterpe_1.ly
head: 2.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14; selected revisions: 1
description:

revision 2.4
date: 1995/06/14 16:35:41; author: chip; state: Exp; lines: +1920 -58208
periodic checkin of Wed Jun 14 09:35:27 PDT 1995
=====

RCS file: /s6/cvsroot/euterpe/compass/layouts/vlsi.cko,v
Working file: compass/layouts/vlsi.cko
head: 2.73
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 73; selected revisions: 3
description:

revision 2.26
date: 1995/06/14 16:35:58; author: chip; state: Exp; lines: +0 -2
periodic checkin of Wed Jun 14 09:35:27 PDT 1995

revision 2.25
date: 1995/06/14 16:29:51; author: chip; state: Exp; lines: +0 -1
periodic checkin of Wed Jun 14 09:29:49 PDT 1995

revision 2.24
date: 1995/06/14 16:24:08; author: chip; state: Exp; lines: +3 -0
periodic checkin of Wed Jun 14 09:24:06 PDT 1995
=====

RCS file: /s6/cvsroot/euterpe/compass/layouts/vlsi.log,v
Working file: compass/layouts/vlsi.log
head: 2.88
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 88; selected revisions: 3
description:

revision 2.28
date: 1995/06/14 16:35:59; author: chip; state: Exp; lines: +3 -0
periodic checkin of Wed Jun 14 09:35:27 PDT 1995

revision 2.27
date: 1995/06/14 16:29:53; author: chip; state: Exp; lines: +1 -0
periodic checkin of Wed Jun 14 09:29:49 PDT 1995

revision 2.26
date: 1995/06/14 16:24:09; author: chip; state: Exp; lines: +3 -0
periodic checkin of Wed Jun 14 09:24:06 PDT 1995
=====

RCS file: /s6/cvsroot/euterpe/doc/BOM,v
Working file: doc/BOM
head: 22.5
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 70; selected revisions: 1
description:
BOM for doc

revision 20.1
date: 1995/06/15 00:11:32; author: bobm; state: Exp; lines: +11 -11
Release Target: euterpe/doc
 front.mif
 intro.mif
 opcodes.mif
 pipeline.mif
 memory.mif
 events.mif
 reset.mif
 clock.mif
 cerberus.mif
 endian.mif
 newchanges.mif

only a few small changes
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/cerberus.mif,v
Working file: doc/cerberus.mif
head: 4.39
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 53; selected revisions: 1
description:

revision 4.36
date: 1995/06/15 00:08:07; author: bobm; state: Exp; lines: +47 -169
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/clock.mif,v
Working file: doc/clock.mif
head: 19.6
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 6; selected revisions: 1
description:

revision 19.6
date: 1995/06/15 00:07:32; author: bobm; state: Exp; lines: +54 -63
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/endian.mif,v
Working file: doc/endian.mif
head: 19.6
branch:

```

locks: strict
access list:
keyword substitution: kv
total revisions: 6;      selected revisions: 1
description:
-----
revision 19.6
date: 1995/06/15 00:08:30; author: bobm; state: Exp; lines: +155 -163
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/events.mif,v
Working file: doc/events.mif
head: 4.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 28;      selected revisions: 1
description:
-----
revision 4.24
date: 1995/06/15 00:07:04; author: bobm; state: Exp; lines: +19 -710
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/intro.mif,v
Working file: doc/intro.mif
head: 4.22
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;      selected revisions: 1
description:
-----
revision 4.22
date: 1995/06/15 00:04:48; author: bobm; state: Exp; lines: +161 -422
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/memory.mif,v
Working file: doc/memory.mif
head: 4.36
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 46;      selected revisions: 1
description:
-----
revision 4.35
date: 1995/06/15 00:06:34; author: bobm; state: Exp; lines: +79 -85
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/newchanges.mif,v

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Working file: doc/newchanges.mif
head: 16.13
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 13;    selected revisions: 1
description:
-----
revision 16.12
date: 1995/06/15 00:08:37; author: bobm; state: Exp; lines: +42 -23
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/opcodes.mif,v
Working file: doc/opcodes.mif
head: 4.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 39;    selected revisions: 1
description:
-----
revision 4.24
date: 1995/06/15 00:05:15; author: bobm; state: Exp; lines: +35 -74
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/pipeline.mif,v
Working file: doc/pipeline.mif
head: 4.24
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 27;    selected revisions: 1
description:
-----
revision 4.24
date: 1995/06/15 00:05:51; author: bobm; state: Exp; lines: +203 -1014
periodic checkin. only a few small changes.
=====

RCS file: /s6/cvsroot/euterpe/doc/Attic/reset.mif,v
Working file: doc/reset.mif
head: 4.22
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;    selected revisions: 1
description:
-----
revision 4.22
date: 1995/06/15 00:07:20; author: bobm; state: Exp; lines: +47 -317
periodic checkin. only a few small changes.

```

```

=====
RCS file: /s6/cvsroot/euterpe/verify/BOM,v
Working file: verify/BOM
head: 12.34
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 404;   selected revisions: 7
description:
-----
revision 4.185
date: 1995/06/15 16:45:31;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/nasty

Oops, prior release contained downlevel files.
-----
revision 4.184
date: 1995/06/15 16:42:36;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/nasty

Fixed hermnasty.
-----
revision 4.183
date: 1995/06/13 19:56:29;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/toplevel
    uunb_debug.srl

For debugging uu/nb handshake
-----
revision 4.182
date: 1995/06/13 18:27:09;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/toplevel
    hermnasty_debug.srl

Fix more signal names
-----
revision 4.181
date: 1995/06/13 18:24:21;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/toplevel
    ife_debug.srl

For hermetestCOM0
-----
revision 4.180
date: 1995/06/13 18:07:27;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/toplevel
    hermnasty_debug.srl

Fix signal names
-----
revision 4.179
date: 1995/06/13 17:49:27;  author: jeffm;  state: Exp;  lines: +2 -2
Release Target: euterpe/verify/toplevel
    hermnasty_debug.srl

```


New trace file for Zycad

=====

RCS file: /s6/cvsroot/euterpe/verify/nasty/BOM,v

Working file: verify/nasty/BOM

head: 19.0

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 36; selected revisions: 4

description:

releasebom adding BOM

revision 18.0

date: 1995/06/15 16:45:16; author: jeffm; state: Exp; lines: +1 -1

Release Target: euterpe/verify/nasty

Oops, prior release contained downlevel files.

revision 17.1

date: 1995/06/15 16:45:07; author: jeffm; state: Exp; lines: +5 -5

releasebom: File needs to be up-to-date to use commit -r

revision 17.0

date: 1995/06/15 16:42:23; author: jeffm; state: Exp; lines: +1 -1

Release Target: euterpe/verify/nasty

Fixed hermnasty.

revision 16.1

date: 1995/06/15 16:42:15; author: jeffm; state: Exp; lines: +6 -6

releasebom: File needs to be up-to-date to use commit -r

=====

RCS file: /s6/cvsroot/euterpe/verify/nasty/hermnasty.S,v

Working file: verify/nasty/hermnasty.S

head: 1.15

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 15; selected revisions: 1

description:

revision 1.12

date: 1995/06/15 16:40:03; author: jeffm; state: Exp; lines: +26 -21

Fixed test.

1) The LVA bit used to indicate uncached access was also used in hermes module calculation. Fixed to use bit 39 instead.

2) Was checking wrong address when checking event register after causing I/O rupts.

3) Was using wrong bits to force blocking reads to return. The cylinders weren't enabled for some of the bits that were returned.

```

=====
RCS file: /s6/cvsroot/euterpe/verify/perf/eshufflei4mux_perf.S,v
Working file: verify/perf/eshufflei4mux_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 1.2
date: 1995/06/15 22:47:21;  author: claseman;  state: Exp;  lines: +13 -2
new scheme for cycle adjustment
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/perf/gcompress16_perf.S,v
Working file: verify/perf/gcompress16_perf.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 3.2
date: 1995/06/15 22:47:26;  author: claseman;  state: Exp;  lines: +15 -1
new scheme for cycle adjustment
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/perf/gcompress64_perf.S,v
Working file: verify/perf/gcompress64_perf.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 3.2
date: 1995/06/15 22:47:28;  author: claseman;  state: Exp;  lines: +15 -1
new scheme for cycle adjustment
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/perf/gextracti128_perf.S,v
Working file: verify/perf/gextracti128_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----

```

```
revision 1.2
date: 1995/06/15 22:47:24;  author: claseman;  state: Exp;  lines: +13 -2
new scheme for cycle adjustment
=====
```

```
RCS file: /s6/cvsroot/euterpe/verify/perf/gextracti64_perf.S,v
Working file: verify/perf/gextracti64_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
```

```
revision 1.2
date: 1995/06/15 22:47:22;  author: claseman;  state: Exp;  lines: +13 -2
new scheme for cycle adjustment
=====
```

```
RCS file: /s6/cvsroot/euterpe/verify/perf/ggfmul8_perf.S,v
Working file: verify/perf/ggfmul8_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
```

```
revision 1.2
date: 1995/06/15 23:04:45;  author: claseman;  state: Exp;  lines: +13 -2
new scheme for cycle adjustment
=====
```

```
RCS file: /s6/cvsroot/euterpe/verify/perf/gmuladd16_perf.S,v
Working file: verify/perf/gmuladd16_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
```

```
revision 1.2
date: 1995/06/14 22:28:34;  author: claseman;  state: Exp;  lines: +13 -2
cycle correction adjustment
=====
```

```
RCS file: /s6/cvsroot/euterpe/verify/perf/gmuladd32_perf.S,v
Working file: verify/perf/gmuladd32_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
```

....

```

total revisions: 3;      selected revisions: 1
description:
-----
revision 1.2
date: 1995/06/14 22:28:32;  author: claseman;  state: Exp;  lines: +13 -2
cycle correction adjustment
=====

RCS file: /s6/cvsroot/euterpe/verify/perf/gmuladd64_perf.S,v
Working file: verify/perf/gmuladd64_perf.S
head: 1.4
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 4;      selected revisions: 2
description:
-----
revision 1.3
date: 1995/06/14 22:27:05;  author: claseman;  state: Exp;  lines: +3 -3
correction to cycle adjustment
-----
revision 1.2
date: 1995/06/14 21:52:49;  author: claseman;  state: Exp;  lines: +13 -2
setup new scheme for cycle correction
=====

RCS file: /s6/cvsroot/euterpe/verify/perf/gmuladd8_perf.S,v
Working file: verify/perf/gmuladd8_perf.S
head: 1.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 1.2
date: 1995/06/14 22:28:36;  author: claseman;  state: Exp;  lines: +13 -2
cycle correction adjustment
=====

RCS file: /s6/cvsroot/euterpe/verify/perf/icachemiss_perf.S,v
Working file: verify/perf/icachemiss_perf.S
head: 1.10
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 10;      selected revisions: 1
description:
-----
revision 1.2
date: 1995/06/12 16:12:31;  author: claseman;  state: Exp;  lines: +1 -1
use TAG_SPACING
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/random/Makefile,v
Working file: verify/random/Makefile
head: 1.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20;      selected revisions: 1
description:
-----
revision 1.20
date: 1995/06/15 19:38:53;  author: dit00;  state: Exp;  lines: +6 -1
Fix rebuild to build _1 files.
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1001.S,v
Working file: verify/random/regdepend_r1001.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 3.2
date: 1995/06/15 19:39:32;  author: dit00;  state: Exp;  lines: +8 -8
Change gcopyswapiswap instruction to gcopyswap11
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1122.S,v
Working file: verify/random/regdepend_r1122.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 3.1
date: 1995/06/15 19:40:57;  author: dit00;  state: Exp;
New test, ran ok.
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1578.S,v
Working file: verify/random/regdepend_r1578.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 3.2
date: 1995/06/15 19:49:30;  author: dit00;  state: Exp;  lines: +11 -11

```

```

Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1639.S,v
Working file: verify/random/regdepend_r1639.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 3.1
date: 1995/06/15 19:49:49;  author: dit00;  state: Exp;
New test, ran ok
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1742.S,v
Working file: verify/random/regdepend_r1742.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 3.2
date: 1995/06/15 19:50:13;  author: dit00;  state: Exp;  lines: +10 -10
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1794.S,v
Working file: verify/random/regdepend_r1794.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:50:31;  author: dit00;  state: Exp;  lines: +11 -11
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1847.S,v
Working file: verify/random/regdepend_r1847.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:

```

```

-----
revision 3.1
date: 1995/06/15 19:50:41; author: dit00; state: Exp;
New test, ran ok
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1906.S,v
Working file: verify/random/regdepend_r1906.S
head: 3.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
-----

revision 3.2
date: 1995/06/15 19:50:59; author: dit00; state: Exp; lines: +8 -8
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r1937.S,v
Working file: verify/random/regdepend_r1937.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
-----

revision 2.2
date: 1995/06/15 19:51:11; author: dit00; state: Exp; lines: +14 -14
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r2057.S,v
Working file: verify/random/regdepend_r2057.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2; selected revisions: 1
description:
-----

revision 3.1
date: 1995/06/15 19:51:23; author: dit00; state: Exp;
New test, ran ok
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r2079.S,v
Working file: verify/random/regdepend_r2079.S
head: 2.3
branch:
locks: strict
access list:

```

```

keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:51:38; author: dit00; state: Exp; lines: +7 -7
  Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r2226.S,v
Working file: verify/random/regdepend_r2226.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:51:55; author: dit00; state: Exp; lines: +12 -12
  Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r2368.S,v
Working file: verify/random/regdepend_r2368.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:52:08; author: dit00; state: Exp; lines: +12 -12
  Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r393.S,v
Working file: verify/random/regdepend_r393.S
head: 2.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:52:17; author: dit00; state: Exp; lines: +8 -8
  Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r3957.S,v
Working file: verify/random/regdepend_r3957.S
head: 3.2

```



```

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 3.1
date: 1995/06/12 20:59:01;  author: dit00;  state: Exp;
Test ran ok
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r4157.S,v
Working file: verify/random/regdepend_r4157.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 3.1
date: 1995/06/12 20:58:03;  author: dit00;  state: Exp;
Test ran ok
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r521.S,v
Working file: verify/random/regdepend_r521.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:52:34;  author: dit00;  state: Exp;  lines: +12 -12
  Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r5564.S,v
Working file: verify/random/regdepend_r5564.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:52:44;  author: dit00;  state: Exp;  lines: +13 -13
  Change gcopyswapiswap instruction to gcopyswapill
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r5712.S,v
Working file: verify/random/regdepend_r5712.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:52:53; author: dit00; state: Exp; lines: +10 -10
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r5854.S,v
Working file: verify/random/regdepend_r5854.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:00; author: dit00; state: Exp; lines: +14 -14
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r5996.S,v
Working file: verify/random/regdepend_r5996.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:08; author: dit00; state: Exp; lines: +10 -10
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6143.S,v
Working file: verify/random/regdepend_r6143.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:18; author: dit00; state: Exp; lines: +10 -10

```

```

Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6308.S,v
Working file: verify/random/regdepend_r6308.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:26; author: dit00; state: Exp; lines: +10 -10
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6450.S,v
Working file: verify/random/regdepend_r6450.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:33; author: dit00; state: Exp; lines: +7 -7
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r656.S,v
Working file: verify/random/regdepend_r656.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:53:48; author: dit00; state: Exp; lines: +6 -6
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6597.S,v
Working file: verify/random/regdepend_r6597.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:

```

```

-----
revision 2.2
date: 1995/06/15 19:54:00; author: dit00; state: Exp; lines: +8 -8
Change gcopyswapiswap instruction to gcopyswap11
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6739.S,v
Working file: verify/random/regdepend_r6739.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
-----

revision 2.2
date: 1995/06/15 19:54:19; author: dit00; state: Exp; lines: +9 -9
Change gcopyswapiswap instruction to gcopyswap11
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r6881.S,v
Working file: verify/random/regdepend_r6881.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
-----

revision 2.2
date: 1995/06/15 19:54:25; author: dit00; state: Exp; lines: +10 -10
Change gcopyswapiswap instruction to gcopyswap11
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r7210.S,v
Working file: verify/random/regdepend_r7210.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3; selected revisions: 1
description:
-----

revision 2.2
date: 1995/06/15 19:54:30; author: dit00; state: Exp; lines: +4 -4
Change gcopyswapiswap instruction to gcopyswap11
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r7338.S,v
Working file: verify/random/regdepend_r7338.S
head: 2.3
branch:
locks: strict
access list:

```

```

keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:54:38; author: dit00; state: Exp; lines: +10 -10
Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r7495.S,v
Working file: verify/random/regdepend_r7495.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:54:44; author: dit00; state: Exp; lines: +9 -9
Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r754.S,v
Working file: verify/random/regdepend_r754.S
head: 3.2
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 2;      selected revisions: 1
description:
-----
revision 3.1
date: 1995/06/15 16:18:48; author: dit00; state: Exp;
Test ran OK.
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r7623.S,v
Working file: verify/random/regdepend_r7623.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:54:51; author: dit00; state: Exp; lines: +12 -12
Change gcopyswapiswap instruction to gcopyswapill1
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r7751.S,v
Working file: verify/random/regdepend_r7751.S
head: 2.3

```

```

branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:54:58; author: dit00; state: Exp; lines: +11 -11
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r786.S,v
Working file: verify/random/regdepend_r786.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:55:06; author: dit00; state: Exp; lines: +4 -4
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/regdepend_r915.S,v
Working file: verify/random/regdepend_r915.S
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.2
date: 1995/06/15 19:55:14; author: dit00; state: Exp; lines: +13 -13
Change gcopyswapiswap instruction to gcopyswapill
=====

RCS file: /s6/cvsroot/euterpe/verify/random/status,v
Working file: verify/random/status
head: 2.26
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;      selected revisions: 1
description:
-----
revision 2.10
date: 1995/06/15 19:55:20; author: dit00; state: Exp; lines: +16 -0
Update
=====

```

```

RCS file: /s6/cvsroot/euterpe/verify/random/template,v
Working file: verify/random/template
head: 2.33
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 33;    selected revisions: 1
description:
-----
revision 2.9
date: 1995/06/15 19:55:40;  author: dit00;  state: Exp;  lines: +45 -40
Update
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/Makefile,v
Working file: verify/standalone/hc/Makefile
head: 1.38
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 38;    selected revisions: 1
description:
-----
revision 1.38
date: 1995/06/16 00:17:33;  author: brian;  state: Exp;  lines: +8 -2
Added DUMPFIL command line switch to re-direct verilog dumpfiles.
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/NOTES,v
Working file: verify/standalone/hc/NOTES
head: 1.28
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 28;    selected revisions: 2
description:
-----
revision 1.27
date: 1995/06/14 20:53:22;  author: brian;  state: Exp;  lines: +3 -0
Add some notes about the 'termite' test.
-----
revision 1.26
date: 1995/06/14 20:51:52;  author: brian;  state: Exp;  lines: +8 -1
Added termite (woody bug) into regression. Fixed onechan to have tag
field of 0 for octlet writes.
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/nbhc_drive.V,v
Working file: verify/standalone/hc/nbhc_drive.V
head: 1.55
branch:
locks: strict
access list:
keyword substitution: kv

```

```

total revisions: 55;      selected revisions: 3
description:
-----
revision 1.51
date: 1995/06/16 00:17:35;  author: brian;  state: Exp;  lines: +13 -3
Added DUMPFILe command line switch to re-direct verilog dumpfiles.
-----
revision 1.50
date: 1995/06/14 20:33:24;  author: brian;  state: Exp;  lines: +2 -2
Changed default dumpfile directory back to current directory.
-----
revision 1.49
date: 1995/06/13 21:45:05;  author: brian;  state: Exp;  lines: +2 -2
Fixed MGsend delay bug in driver. Driver was checked-in with wrong value.
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/nbhcregress,v
Working file: verify/standalone/hc/nbhcregress
head: 5.14
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 14;      selected revisions: 1
description:
-----
revision 5.13
date: 1995/06/14 20:51:54;  author: brian;  state: Exp;  lines: +1 -0
Added termite (woody bug) into regression. Fixed onechan to have tag
field of 0 for octlet writes.
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/onechan.vec,v
Working file: verify/standalone/hc/onechan.vec
head: 2.3
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 1
description:
-----
revision 2.3
date: 1995/06/14 20:51:56;  author: brian;  state: Exp;  lines: +87 -3
Added termite (woody bug) into regression. Fixed onechan to have tag
field of 0 for octlet writes.
=====

RCS file: /s6/cvsroot/euterpe/verify/standalone/hc/termite.vec,v
Working file: verify/standalone/hc/termite.vec
head: 10.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;      selected revisions: 1
description:

```

revision 10.1
date: 1995/06/14 19:58:05; author: brian; state: Exp;
Bug with event sequence.
=====

RCS file: /s6/cvsroot/euterpe/verify/toplevel/BOM,v
Working file: verify/toplevel/BOM
head: 44.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 132; selected revisions: 5
description:
releasebom adding BOM

revision 39.41
date: 1995/06/13 19:56:16; author: jeffm; state: Exp; lines: +5 -1
Release Target: euterpe/verify/toplevel
uunb_debug.srl

For debugging uu/nb handshake

revision 39.40
date: 1995/06/13 18:26:52; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

Fix more signal names

revision 39.39
date: 1995/06/13 18:24:07; author: jeffm; state: Exp; lines: +5 -1
Release Target: euterpe/verify/toplevel
ife_debug.srl

For hermetestCOMO

revision 39.38
date: 1995/06/13 18:07:13; author: jeffm; state: Exp; lines: +2 -2
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

Fix signal names

revision 39.37
date: 1995/06/13 17:49:16; author: jeffm; state: Exp; lines: +5 -1
Release Target: euterpe/verify/toplevel
hermnasty_debug.srl

New trace file for Zycad
=====

RCS file: /s6/cvsroot/euterpe/verify/toplevel/hermnasty_debug.srl,v
Working file: verify/toplevel/hermnasty_debug.srl
head: 39.3
branch:

```

locks: strict
access list:
keyword substitution: kv
total revisions: 3;      selected revisions: 3
description:
-----
revision 39.3
date: 1995/06/13 18:26:18;  author: jeffm;  state: Exp;  lines: +11 -2
Fix more signal names
-----
revision 39.2
date: 1995/06/13 18:06:54;  author: jeffm;  state: Exp;  lines: +2 -2
Fix signal names.
-----
revision 39.1
date: 1995/06/13 17:46:57;  author: jeffm;  state: Exp;
New trace file for Zycad
=====

RCS file: /s6/cvsroot/euterpe/verify/toplevel/ife_debug.srl,v
Working file: verify/toplevel/ife_debug.srl
head: 39.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;      selected revisions: 1
description:
-----
revision 39.1
date: 1995/06/13 18:23:48;  author: jeffm;  state: Exp;
For hermetestCOM0
=====

RCS file: /s6/cvsroot/euterpe/verify/toplevel/uunb_debug.srl,v
Working file: verify/toplevel/uunb_debug.srl
head: 39.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1;      selected revisions: 1
description:
-----
revision 39.1
date: 1995/06/13 19:55:56;  author: jeffm;  state: Exp;
For debugging uu/nb handshake
=====

RCS file: /s6/cvsroot/euterpe/verilog/BOM,v
Working file: verilog/BOM
head: 6.9
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 1390;   selected revisions: 6

```

description:
top level verilog BOM

revision 3.627

date: 1995/06/14 22:35:47; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc

uu/uu_control.pim:

Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:
Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC
in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).
cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

revision 3.626

date: 1995/06/14 08:39:37; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2))
only to avoid confusion of BOM not using newest files).
Do placement tomorrow. Hopefully this will stop synch ops from losing CC in
the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 3.625

date: 1995/06/12 04:52:07; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc

uu/uu_control.pim for uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only)

revision 3.624

date: 1995/06/11 19:36:06; author: mws; state: Exp; lines: +2 -2
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V (do placement later):

Change in bsrc BOM 320.1 and bsrc/uu BOM 206.0 to "use the swpBsy pipe to
suppress forward progress early in the store&swap until the repel can take
over" was allowing a store&swap (synch op) in one cyl to suppress forward
progress in up to 3 other cyls. The claim was that this would not matter
architecturally, although it would perturb micro level behavior. Further
reflection has deemed this too tricky, so add eta chopper so that only the
cyl needing suppression gets it.

uu/sswap.tst uu/uusswap8.tst: Restore previous versions to match restore of
1st job in store&swap again enforcing eta3. Doing restore only to avoid
confusion of the BOM including not-the-newest file from the repository.

revision 3.623

date: 1995/06/11 08:36:18; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla (comments only) (do placement later):
Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta
for the remaining volatile synch op (store&swap) sequence at the end of the
2nd (was 1st) job" inadvertently allowed forward progress to be declared,
releasing CC after an ICache miss before DCache miss was tested. This
allowed another cyl to steal the ICache line, undoing the previous fill
and causing a thrash hang. To avoid the expense of adding a forward
progress pipe, we justify the use of the swpBsy pipe to suppress
forward progress early in the store&swap until the repel can take over.

revision 3.622

date: 1995/06/10 09:08:03; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing
vldSwpGoUW, causing probable excess repel toggels leaving preempts locked
out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when
storeswap repel begin delay was overloaded onto swpBsy.

uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until
step=1 to align eta and begin repel.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/BOM,v

Working file: verilog/bsrc/BOM

head: 346.6

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 1737; selected revisions: 9

description:

revision 322.0

date: 1995/06/14 22:35:29; author: mws; state: Exp; lines: +1 -1

Release Target: euterpe/verilog/bsrc

uu/uu_control.pim:

Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.

Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC
in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

revision 321.2

date: 1995/06/14 22:35:17; author: mws; state: Exp; lines: +3 -3

releasebom: File needs to be up-to-date to use commit -r

revision 321.1

date: 1995/06/14 08:39:22; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore swswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).
Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 321.0

date: 1995/06/12 04:51:47; author: mws; state: Exp; lines: +1 -1

Release Target: euterpe/verilog/bsrc

uu/uu_control.pim for uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only)

revision 320.3

date: 1995/06/12 04:51:34; author: mws; state: Exp; lines: +2 -2

releasebom: File needs to be up-to-date to use commit -r

revision 320.2

date: 1995/06/11 19:35:45; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc/uu

uu/uu.V (do placement later):

Change in bsrc BOM 320.1 and bsrc/uu BOM 206.0 to "use the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over" was allowing a store&swap (synch op) in one cyl to suppress forward progress in up to 3 other cyls. The claim was that this would not matter architecturally, although it would perturb micro level behavior. Further reflection has deemed this too tricky, so add eta chopper so that only the cyl needing suppression gets it.

uu/sswap.tst uu/uusswap8.tst: Restore previous versions to match restore of 1st job in store&swap again enforcing eta3. Doing restore only to avoid confusion of the BOM including not-the-newest file from the repository.

revision 320.1

date: 1995/06/11 08:36:03; author: mws; state: Exp; lines: +2 -2

Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only) (do placement later):

Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta for the remaining volatile synch op (store&swap) sequence at the end of the 2nd (was 1st) job" inadvertently allowed forward progress to be declared, releasing CC after an ICache miss before DCache miss was tested. This allowed another cyl to steal the ICache line, undoing the previous fill

```

    and causing a thrash hang.  To avoid the expense of adding a forward
    progress pipe, we justify the use of the swpBsy pipe to suppress
    forward progress early in the store&swap until the repel can take over.
-----
revision 320.0
date: 1995/06/10 09:07:40;  author: mws;  state: Exp;  lines: +1 -1
Release Target: euterpe/verilog/bsrc

StoreSwaps (atomic/synch ops) were mostly broken because:
uu/uu.V:
    Pipelining typo in yesterday's change used stepUV instead of UW in computing
    vldSwpGoUW, causing probable excess repel toggels leaving preempts locked
    out (hangs) or sequences unprotected (integrity damage).
uu/uustepuu.pla:
    Yesterday's change forgot to remove dontcares no longer available when
    storeswap repel begin delay was overloaded onto swpBsy.
uu/uuswap.tst uu/uuswap8.tst:  Update to match yesterday's change to wait until
    step=1 to align eta and begin repel.
-----
revision 319.2
date: 1995/06/10 09:07:23;  author: mws;  state: Exp;  lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/Makefile.tst,v
Working file: verilog/bsrc/Makefile.tst
head: 40.104
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 104;   selected revisions: 2
description:
-----
revision 40.84
date: 1995/06/13 06:58:18;  author: tbr;  state: Exp;  lines: +6 -5
use nof data for incomplete nets in final report
-----
revision 40.83
date: 1995/06/11 01:09:17;  author: tbr;  state: Exp;  lines: +22 -9
name .slack file consistently.  New hueristig for all net file ordering
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/chip_euterpe-base.netcap,v
Working file: verilog/bsrc/chip_euterpe-base.netcap
head: 312.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20;   selected revisions: 1
description:
-----
revision 312.2
date: 1995/06/10 18:52:01;  author: tbr;  state: Exp;  lines: +76524 -88341
from latest BOM 318 run
=====

```

```

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/chip_euterpe-base.nof,v
Working file: verilog/bsrc/chip_euterpe-base.nof
head: 307.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;    selected revisions: 1
description:
-----
revision 307.5
date: 1995/06/10 19:04:24;  author: tbr;  state: Exp;  lines: +15247 -15247
from latest BOM 318 run
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/chip_euterpe-base.pim,v
Working file: verilog/bsrc/chip_euterpe-base.pim
head: 312.23
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 23;    selected revisions: 1
description:
-----
revision 312.2
date: 1995/06/10 18:55:55;  author: tbr;  state: Exp;  lines: +53247 -53731
from latest BOM 318 run
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/chip_euterpe-base.strength,v
Working file: verilog/bsrc/chip_euterpe-base.strength
head: 312.20
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 20;    selected revisions: 1
description:
-----
revision 312.2
date: 1995/06/10 18:57:06;  author: tbr;  state: Exp;  lines: +49897 -58001
from latest BOM 318 run
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/chip_euterpe-base.xrf,v
Working file: verilog/bsrc/chip_euterpe-base.xrf
head: 307.11
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 11;    selected revisions: 1
description:
-----
revision 307.5

```

date: 1995/06/10 19:06:51; author: tbr; state: Exp; lines: +25167 -25169
from latest BOM 318 run

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/pimlib.pl,v
Working file: verilog/bsrc/pimlib.pl
head: 37.8
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 8; selected revisions: 1
description:

revision 37.7
date: 1995/06/11 01:05:49; author: tbr; state: Exp; lines: +6 -1
handle .flipx correctly

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/BOM,v
Working file: verilog/bsrc/cj/BOM
head: 122.0
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 259; selected revisions: 2
description:

revision 120.0
date: 1995/06/14 22:30:06; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc

uu/uu_control.pim:

Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:
Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC
in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).
cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

revision 119.1
date: 1995/06/14 22:29:59; author: mws; state: Exp; lines: +3 -3
releasebom: File needs to be up-to-date to use commit -r

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/rsrvd.tst,v
Working file: verilog/bsrc/cj/rsrvd.tst
head: 78.13
branch:
locks: strict
access list:

keyword substitution: kv
total revisions: 13; selected revisions: 1
description:

revision 78.12

date: 1995/06/14 22:27:12; author: mws; state: Exp; lines: +2 -2
cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/cj/rupt.tst,v
Working file: verilog/bsrc/cj/rupt.tst

head: 93.5

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 5; selected revisions: 1

description:

revision 93.4

date: 1995/06/14 22:27:14; author: mws; state: Exp; lines: +2 -2
cj/rupt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/hc/hc.V,v

Working file: verilog/bsrc/hc/hc.V

head: 1.56

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 56; selected revisions: 1

description:

revision 1.53

date: 1995/06/15 16:30:46; author: woody; state: Exp; lines: +15 -6
hc.V, hc_ostate.pla:

When a conflict on a load is detected, it is possible to receive another request for nb. This resulted in hc keeping track of two requests. If the second requests was an Event Daemon Store, it could be processed out of order (before the conflicting load is resolved and sent to the hermes interface). This resulted in an incorrect tag being sent to nb creating confusion. Also hc_brrresp is assuming that ostate will be processing the Blocking Read immediately, which isn't the case following a conflicting load. This resulted in the channel hanging. Hermesnasty discovered this problem. The logic has been changed so that the 'br' controls are held pending until the conflict is resolved and the load is transmitted.

Furthermore by inspection it was discovered that ostate was not correctly updating address/controls (frcSadrSnap) following the transmit of a conflicting load. The result being that conflictRecovery mode stayed active too long with a minor impact to performance.

placement updates to follow.

```

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/hc/hc_ostate.pla,v
Working file: verilog/bsrc/hc/hc_ostate.pla
head: 3.26
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 26;    selected revisions: 1
description:
-----
revision 3.24
date: 1995/06/15 16:30:48;  author: woody;  state: Exp;  lines: +10 -4
hc.V, hc_ostate.pla:
When a conflict on a load is detected, it is possible to receive another request
for nb. This resulted in hc keeping track of two requests. If the second
requests was an Event Daemon Store, it could be processed out of order (before
the conflicting load is resolved and sent to the hermes interface). This
resulted in an incorrect tag being sent to nb creating confusion. Also
hc_brrresp is assuming that ostate will be processing the Blocking Read
immediately, which isn't the case following a conflicting load. This resulted
in the channel hanging. Hermesnasty discovered this problem. The logic has been
changed so that the 'br' controls are held pending until the conflict is
resolved and the load is transmitted.
Furthermore by inspection it was discovered that ostate was not correctly
updating address/controls (frcSadrSnap) following the transmit of a conflicting
load. The result being that conflictRecovery mode stayed active too long with a
minor impact to performance.

```

placement updates to follow.

```

=====
RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/BOM,v
Working file: verilog/bsrc/uu/BOM
head: 218.1
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 480;    selected revisions: 12
description:
-----

```

```

revision 210.0
date: 1995/06/14 22:34:17;  author: mws;  state: Exp;  lines: +1 -1
Release Target: euterpe/verilog/bsrc

```

uu/uu_control.pim:

```

Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:
Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC
in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).
cj/rpt.tst cj/rsrvd.tst: Delay expected event mode exit from BBack
to BBackBrk to match bsrc/BOM 319.0 and uu/BOM 204.0.

```

revision 209.1

date: 1995/06/14 22:34:09; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r

revision 209.0

date: 1995/06/14 08:39:04; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore swswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).
Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 208.1

date: 1995/06/14 08:38:54; author: mws; state: Exp; lines: +6 -6
releasebom: File needs to be up-to-date to use commit -r

revision 208.0

date: 1995/06/12 04:50:25; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc

uu/uu_control.pim for uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only)

revision 207.1

date: 1995/06/12 04:50:17; author: mws; state: Exp; lines: +2 -2
releasebom: File needs to be up-to-date to use commit -r

revision 207.0

date: 1995/06/11 19:35:23; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc/uu

uu/uu.V (do placement later):

Change in bsrc BOM 320.1 and bsrc/uu BOM 206.0 to "use the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over" was allowing a store&swap (synch op) in one cyl to suppress forward progress in up to 3 other cyls. The claim was that this would not matter architecturally, although it would perturb micro level behavior. Further reflection has deemed this too tricky, so add eta chopper so that only the cyl needing suppression gets it.

uu/sswap.tst uu/uusswap8.tst: Restore previous versions to match restore of 1st job in store&swap again enforcing eta3. Doing restore only to avoid confusion of the BOM including not-the-newest file from the repository.

revision 206.1

date: 1995/06/11 19:35:13; author: mws; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r

revision 206.0

date: 1995/06/11 08:35:45; author: mws; state: Exp; lines: +1 -1

Release Target: euterpe/verilog/bsrc/uu

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla (comments only) (do placement later):
Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta
for the remaining volatile synch op (store&swap) sequence at the end of the
2nd (was 1st) job" inadvertently allowed forward progress to be declared,
releasing CC after an ICache miss before DCache miss was tested. This
allowed another cyl to steal the ICache line, undoing the previous fill
and causing a thrash hang. To avoid the expense of adding a forward
progress pipe, we justify the use of the swpBsy pipe to suppress
forward progress early in the store&swap until the repel can take over.

revision 205.1

date: 1995/06/11 08:35:36; author: mws; state: Exp; lines: +4 -4
releasebom: File needs to be up-to-date to use commit -r

revision 205.0

date: 1995/06/10 09:06:13; author: mws; state: Exp; lines: +1 -1
Release Target: euterpe/verilog/bsrc

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing
vldSwpGoUW, causing probable excess repel toggels leaving preempts locked
out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when
storeswap repel begin delay was overloaded onto swpBsy.

uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until
step=1 to align eta and begin repel.

revision 204.1

date: 1995/06/10 09:06:03; author: mws; state: Exp; lines: +5 -5
releasebom: File needs to be up-to-date to use commit -r
=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/sswap.tst,v

Working file: verilog/bsrc/uu/sswap.tst

head: 125.8

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 8; selected revisions: 3

description:

revision 125.6

date: 1995/06/14 08:36:09; author: mws; state: Exp; lines: +5 -5

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2))
only to avoid confusion of BOM not using newest files).

Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 125.5

date: 1995/06/11 19:33:29; author: mws; state: Exp; lines: +4 -4
uu/sswap.tst uu/uuswap8.tst: Restore previous versions to match restore of 1st job in store&swap again enforcing eta3. Doing restore only to avoid confusion of the BOM including not-the-newest file from the repository.

revision 125.4

date: 1995/06/10 08:56:53; author: mws; state: Exp; lines: +5 -5

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing vldSwpGoUW, causing probable excess repel toggels leaving preempts locked out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when storeswap repel begin delay was overloaded onto swpBsy.

uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until step=1 to align eta and begin repel.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/sswap8.tst,v

Working file: verilog/bsrc/uu/sswap8.tst

head: 169.4

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 4; selected revisions: 3

description:

revision 169.4

date: 1995/06/14 08:36:10; author: mws; state: Exp; lines: +9 -9

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).

Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 169.3

date: 1995/06/11 19:33:32; author: mws; state: Exp; lines: +8 -8

uu/sswap.tst uu/uuswap8.tst: Restore previous versions to match restore of 1st job in store&swap again enforcing eta3. Doing restore only to avoid confusion of the BOM including not-the-newest file from the repository.

revision 169.2

date: 1995/06/10 08:56:56; author: mws; state: Exp; lines: +9 -9

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing vldSwpGoUW, causing probable excess repel toggels leaving preempts locked out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when storeswap repel begin delay was overloaded onto swpBsy.
uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until step=1 to align eta and begin repel.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uu.V,v

Working file: verilog/bsrc/uu/uu.V

head: 1.202

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 202; selected revisions: 4

description:

issue unit

revision 1.196

date: 1995/06/14 08:36:13; author: mws; state: Exp; lines: +33 -29

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).

Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 1.195

date: 1995/06/11 19:18:04; author: mws; state: Exp; lines: +11 -4

Change in bsrc BOM 320.1 and bsrc/uu BOM 206.0 to "use the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over" was allowing a store&swap (synch op) in one cyl to suppress forward progress in up to 3 other cyls. The claim was that this would not matter architecturally, although it would perturb micro level behavior. Further reflection has deemed this too tricky, so add eta chopper so that only the cyl needing suppression gets it.

revision 1.194

date: 1995/06/11 08:34:50; author: mws; state: Exp; lines: +4 -2

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only):

Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta for the remaining volatile synch op (store&swap) sequence at the end of the 2nd (was 1st) job" inadvertently allowed forward progress to be declared, releasing CC after an ICache miss before DCache miss was tested. This allowed another cyl to steal the ICache line, undoing the previous fill and causing a thrash hang. To avoid the expense of adding a forward progress pipe, we justify the use of the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over.

```

revision 1.193
date: 1995/06/10 08:57:02; author: mws; state: Exp; lines: +2 -2
StoreSwaps (atomic/synch ops) were mostly broken because:
uu/uu.V:
    Pipelining typo in yesterday's change used stepUV instead of UW in computing
    vldSwpGoUW, causing probable excess repel toggels leaving preempts locked
    out (hangs) or sequences unprotected (integrity damage).
uu/uustepuu.pla:
    Yesterday's change forgot to remove dontcares no longer available when
    storeswap repel begin delay was overloaded onto swpBsy.
uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until
    step=1 to align eta and begin repel.
=====

```

```

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uu_control.pim,v
Working file: verilog/bsrc/uu/uu_control.pim
head: 68.60
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 60;    selected revisions: 2
description:
-----

```

```

revision 68.59
date: 1995/06/14 22:27:59; author: mws; state: Exp; lines: +68 -47
Update for 15jun95's uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla:
Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to
suppress forward progress before new store&swap algorithms set its repel
state still was not working. It was needed on eta3 but the addition
of a pipeline that could support eta3 was forgotten and eta0 pipe was
improperly substituted. Change swpBsy pipe to flops to handle all etas.
Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement
on step 1 (restore 1.12). Hopefully this will stop synch ops from losing CC
in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).
-----

```

```

revision 68.58
date: 1995/06/12 04:43:34; author: mws; state: Exp; lines: +2 -0
uu/uu_control.pim uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only):
    Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta
    for the remaining volatile synch op (store&swap) sequence at the end of the
    2nd (was 1st) job" inadvertently allowed forward progress to be declared,
    releasing CC after an ICache miss before DCache miss was tested. This
    allowed another cyl to steal the ICache line, undoing the previous fill
    and causing a thrash hang. To avoid the expense of adding a forward
    progress pipe, we justify the use of the swpBsy pipe to suppress
    forward progress early in the store&swap until the repel can take over.
=====

```

```

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uustepuu.pla,v
Working file: verilog/bsrc/uu/uustepuu.pla
head: 84.16
branch:
locks: strict
access list:
keyword substitution: kv
total revisions: 16;    selected revisions: 3

```

description:

revision 84.15

date: 1995/06/14 08:36:17; author: mws; state: Exp; lines: +11 -9

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files).
Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

revision 84.14

date: 1995/06/11 08:34:55; author: mws; state: Exp; lines: +10 -8

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla (comments only):

Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta for the remaining volatile synch op (store&swap) sequence at the end of the 2nd (was 1st) job" inadvertently allowed forward progress to be declared, releasing CC after an ICache miss before DCache miss was tested. This allowed another cyl to steal the ICache line, undoing the previous fill and causing a thrash hang. To avoid the expense of adding a forward progress pipe, we justify the use of the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over.

revision 84.13

date: 1995/06/10 08:57:07; author: mws; state: Exp; lines: +9 -8

StoreSwaps (atomic/synch ops) were mostly broken because:

uu/uu.V:

Pipelining typo in yesterday's change used stepUV instead of UW in computing vldSwpGoUW, causing probable excess repel toggels leaving preempts locked out (hangs) or sequences unprotected (integrity damage).

uu/uustepuu.pla:

Yesterday's change forgot to remove dontcares no longer available when storeswap repel begin delay was overloaded onto swpBsy.

uu/uuswap.tst uu/uuswap8.tst: Update to match yesterday's change to wait until step=1 to align eta and begin repel.

=====

RCS file: /s6/cvsroot/euterpe/verilog/bsrc/uu/uuthruut.Veqn,v

Working file: verilog/bsrc/uu/uuthruut.Veqn

head: 1.14

branch:

locks: strict

access list:

keyword substitution: kv

total revisions: 14; selected revisions: 2

description:

Check each resource against its throughput limit; combine.

revision 1.14

date: 1995/06/14 08:36:19; author: mws; state: Exp; lines: +5 -12

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla uu/sswap(8).tst:

Change in bsrc BOM 320.1-320.2/321.0 and bsrc/uu BOM 206-7.0 to try to

suppress forward progress before new store&swap algorithms set its repel state still was not working. It was needed on eta3 but the addition of a pipeline that could support eta3 was forgotten and eta0 pipe was improperly substituted. Change swpBsy pipe to flops to handle all etas. Then ustepuu loses 1 dontcare step, but uuthruut can dontcare eta3 enforcement on step 1 (restore 1.12). Restore sswap(8).tst to match (125.4(169.2)) only to avoid confusion of BOM not using newest files). Do placement tomorrow. Hopefully this will stop synch ops from losing CC in the middle of their algorithms, (cachesynchnasty_0 performance 50% worse).

=====

revision 1.13

date: 1995/06/11 08:34:57; author: mws; state: Exp; lines: +12 -5

uu/uu.V uu/uuthruut.Veqn uu/uustepuu.pla(comments only):

Change in bsrc BOM 319.0 and bsrc/uu BOM 204.0 to "set repel and enforce eta for the remaining volatile synch op (store&swap) sequence at the end of the 2nd (was 1st) job" inadvertently allowed forward progress to be declared, releasing CC after an ICache miss before DCache miss was tested. This allowed another cyl to steal the ICache line, undoing the previous fill and causing a thrash hang. To avoid the expense of adding a forward progress pipe, we justify the use of the swpBsy pipe to suppress forward progress early in the store&swap until the repel can take over.

=====